

Remarks

Claims 1, 3-13, 15-17, 19, 20 and 22-27 are in the application. All of these claims have been rejected under section 103. It is respectfully submitted that the rejection of each of the independent claims 1, 17, 24 and 27 is in error, and claims 13 and 20 are amended to more fully distinguish the invention over the art of record. Specifically, reconsideration is requested for the following reasons.

With regard to claim 1, applicants have defined a method which requires, among other distinguishing features, converting an “amorphous silicon layer to a crystalline silicon layer using selective laser annealing ...” and “patterning said crystalline layer to form a raised source/drain contact structure ...”

This sequence has been acknowledged by the examiner as not found in the primary reference (Yu '450). The Shiozawa '352 reference was relied upon for showing that it is known to pattern “crystalline silicon film to form interconnections over the source/drain regions and extending on to the isolation regions ...” However, the crystalline film of Shiozawa is not formed “using selective laser annealing” and there is no teaching or suggestion in either of the references that the process sequence disclosed in Yu '450 should be reconstructed to meet the terms of applicants' claim. That is, the examiner's recombination of prior art method steps is only apparent in hindsight.

Although the Murthy '568 reference has also been cited to support these rejections, it is not seen that this reference can at all compensate for the above-noted deficiencies present in the combination of Yu and Shiozawa.

The subject matter of independent claims 17, 24 and 27 is distinct and nonobvious over the examiner's combination for reasons similar to those noted above with regard to claim 1. For example, claim 27 requires "patterning said crystalline silicon layer ..."

The other rejected independent claims 13 and 20 are also allowable under section 103. Claim 13 (amended) now requires, among other features, the step of "converting said amorphous silicon raised source/drain contact structure to a crystalline silicon raised source/drain contact structure by selective laser annealing ..." wherein the step of "said converting" includes "urging at least some of said dopant impurities to diffuse into said source/drain region."

The Murthy reference does not at all deal with selective laser annealing. The Murthy reference does not contain any teaching or suggestion which would render it obvious to apply the disclosure of Murthy to reconstruct applicant's invention. Note, for example, that the text relied upon for the rejection at col. 12, lines 26-55 discloses no more than a conventional step of using an "RTP anneal process ... to form diffusion doped semiconductor ..."

None of the art of record teaches or suggests the concept of "urging dopant impurities to diffuse into said source/drain region" while "converting ... to a crystalline silicon raised source/drain contact structure by laser annealing the structure ..." Thus claim 13 contains allowable subject matter.

Claim 20 is patentably distinct for at least reasons similar to those presented with regard to claim 13. Specifically, claim 20 requires "selectively

laser annealing said discrete amorphous silicon layer ... and driving at least some of said dopant impurities into said exposed surface."

For all of the above reasons it is submitted that the application is now in condition for allowance and allowance is requested.

Respectfully submitted,

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